

REMARKS

After entering the above amendments, claims 1-5, 8-10, 13-15, 17-20, and 35-38 will be pending and subject to examination. Claims 27-28 and 30-34 remain pending but have been previously withdrawn from examination. Reconsideration and allowance of the current application are requested in light of the above-marked amendments and the foregoing remarks.

Summary of Rejections. The Office has rejected claims 2-4 and 20 under 35 U.S.C. §112, second paragraph as allegedly failing to clearly and distinctly recite what the inventor considers to be the invention; claims 19-20, 24-26, 35, and 36 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 3,582,516 to LeBlanc (hereinafter referred to as “LeBlanc”); claims 15, 17, and 18 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over U.S. Patent No. 5,406,694 to Ruiz (“Ruiz”) in view of LeBlanc; claims 1-5, 8-10, and 13-14 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Ruiz in view of LeBlanc and further in view of U.S. Patent No. 4,376,194 to Tanaka (“Tanaka”); and claim 11 under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Ruiz in view of LeBlanc, further in view of Tanaka, and further in view of U.S. Patent No. 5,421,884 to Schafer (“Schafer”).

Summary of Amendments. With this amendment, claims 1-4, 8-10, 14-15, 17-20, and 24-26 have been amended, claim 11 has been canceled, and new claims 37-38 have been added. Each of the independent claims has been amended to specify that removal of the one or more solvents occurs under vacuum without substantially heating the adhesive composition. This feature is fully supported by the original specification, at least at ¶[00030], which discloses that vacuum conditions are used to remove the solvent while warming of the adhesive composition is merely optional, and in Example 1 at ¶[0047] and Table 1. New claims 37 and 38 find support at least at ¶[0038]. No new matter has been added with this amendment.

Rejections under 35 U.S.C. §112, Second Paragraph

Claims 2-4 and 20 stand rejected under 35 U.S.C. §112, second paragraph, because the Office alleges that the claims fail to clearly delineate the subject matter that the Inventor(s) intend to claim. This rejection is respectfully traversed in light of the above-presented amendments, which are believed to cure the errors identified by the Office. Accordingly, withdrawal of the pending rejection under 35 U.S.C. §112, second paragraph is respectfully requested.

Rejections under 35 U.S.C. §102

Independent claim 19, as well as claims 20, 24-26, 35, and 36 that depend therefrom stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by LeBlanc. This rejection is respectfully traversed. To present a valid anticipation rejection under 35 U.S.C. §102, the Office must identify a single prior art reference in which “each and every element as set forth in the claim is found, either expressly or inherently described.” MPEP §2131 quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). LeBlanc fails to meet this requirement at least because LeBlanc does not disclose the features of applying the adhesive composition between a first surface of a manufacturing tool and an air bearing surface of a ceramic material and subjecting the adhesive composition to vacuum conditions sufficient to substantially remove the one or more solvents without substantially heating the adhesive composition.

LeBlanc describes an adhesive composition whose desirable features are realized through thermosetting.¹ LeBlanc does not describe or suggest the use of vacuum without substantially heating the adhesive composition as a desirable or even a possible technique for removing the solvent after application to cause bonding between any two items, let alone a ceramic material and a manufacturing tool. Thermosetting, by definition, requires the causation of some chemical change

¹ See, for example, lines 15-17 of column 2 in LeBlanc.

to a novolac resin, typically by heat curing of the novolac resin. The explicit language of claim 19, as well as that of independent claims 1 and 15, clearly directly contradicts the teachings of LeBlanc and thus cannot be anticipated thereby.

For at least these reasons, withdrawal of the pending rejection under 35 U.S.C. §102 is respectfully requested.

Rejections under 35 U.S.C. §103

Independent claim 15, as well as claims 17 and 18 that depend therefrom stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Ruiz in view of LeBlanc. Independent claim 1, as well as claims 2-5, 8-10, 13, and 14 that depend therefrom stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Ruiz in view of LeBlanc and further in view of Tanaka. Claim 11 that depends from claim 1 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentably obvious over Ruiz in view of LeBlanc, Tanaka, and Schafer. These rejections are respectfully traversed.

The standard set by the U.S. Supreme Court for a proper rejection under 35 U.S.C. §103 requires determining the scope and contents of the prior art and ascertaining the differences between the prior art and the claimed subject matter, and resolving the level of ordinary skill in the pertinent art to determine if the differences would have been within this level of ordinary skill. *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), reaffirmed in *KSR v. Teleflex*, 550 U.S. 398 (2007). As noted in MPEP §2141.02 and §2143.03, this analysis further requires consideration of whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art at the time of invention. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). Merely distilling the claimed subject matter down to the “gist” or “thrust” of an invention disregards this

requirement. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). For a proper rejection under 35 U.S.C. §103(a), the Office “bears the initial burden of factually supporting any *prima facie* conclusion of obviousness” and must therefore present “a clear articulation of the reason(s) why the claimed invention would have been obvious.”

All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Thus, if the cited references fail to disclose or at least fairly suggest each specific and explicit limitation of the claimed subject matter, the Office can present a valid *prima facie* case for obviousness under 35 U.S.C. §103 only by presenting a convincing line of reasoning as to why one of ordinary skill in the art at the time of conception of the instantly claimed subject matter would have found the claimed invention to have been obvious in light of the teachings of the references. See *e.g.* MPEP §706.02(j) citing *Ex Parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

It is respectfully submitted that neither Ruiz in combination with LeBlanc or with LeBlanc and Tanaka could have reasonably provided one of ordinary skill in the art at the time of the present invention with reason to consider the instantly claimed subject matter to be unpatentably obvious.

While Ruiz discusses the manufacture of sliders from ceramic material, it is completely silent with regards to bonding of a chunk of such material to a rigid carrier tool with the exception of the following statements at lines 38 to 52 of column 7: “the air-bearing surface side of the chunk 40 is bonded to a rigid support piece 50 using permanent thermo-set adhesive” and “the supported chunk assembly is then bonded to a regular row tool carrier 52 using conventional bonding techniques, such as by using thermo-plastic temporary adhesive.” Both of these statements indicate that a thermoset adhesive is used in bonding the chunk to the tools that stabilize it during processing

operations to form a slider, which directly contradicts the feature appearing in all of the instantly independent claims regarding removing the one or more solvents under vacuum without substantial heating.

Even assuming *arguendo* that the teachings of Ruiz do not teach away from the instantly claimed subject matter, Ruiz certainly cannot be construed as describing or suggesting the use of an adhesive composition as instantly claimed. For example, no mention is made of removing solvent under vacuum or of avoiding heating of the adhesive composition.

The Office has alleged that LeBlanc cures the deficiencies in Ruiz with regards to the adhesive composition. However, as noted above, LeBlanc also does not describe or suggest an adhesive composition as instantly claimed. LeBlanc instead describes novolac resins whose desirable properties are achieved by thermosetting the resins. This is neither descriptive nor suggestive of removal of one or more solvents under vacuum without substantial heating.

With regards to claim 1 and its dependent claims, the Office has proffered Tanaka as allegedly teaching the use of an adhesive composition including a solvent to bond two substrates and the removal of the solvent. However, the section of Tanaka cited by the Office (lines 46-52 of column 8) provides merely a generic mention of "evaporating the solvent," which does not provide sufficient specificity to indicate the desirability of the instantly claimed features of removing the solvent under vacuum without heating.

Likewise, Schafer, which was cited in the rejection of claim 11, does not provide the necessary description or suggestion to render the independent claims obvious as currently presented. Schafer describes removal of solvent using both vacuum and heat, which directly contradicts the instantly claimed subject matter.

Further with regards to new claim 38, which recites the limitation that the slider formed from the ceramic material is de-bonded from the manufacturing tool by reintroducing the one or more solvents to the adhesive composition between the manufacturing tool and the slider, LeBlanc's teaching of thermosetting of the novolac resins disclosed therein explicitly and impermissibly teaches away from the instantly claimed subject matter. An obviousness rejection "cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." MPEP §2141 quoting *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1386, 1385 (2007). This rationale must include a showing that all of the claimed elements were known in the prior art and that one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, to produce a combination yielding nothing more than predictable results to one of ordinary skill in the art. *KSR*, 82 USPQ2d at 1395. MPEP §2141.02 further notes that "a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

As noted above, LeBlanc states that the desirable characteristics of the described novolac resins are realized by thermosetting the novolac resins. Thermosetting is well known to those of skill in the art to result in irreversibly changing a soft, viscous prepolymer into an infusible, insoluble polymer network by curing. One of ordinary skill in the art, upon reading and understanding LeBlanc for all that it teaches, would not have found good reason to use the compositions described therein in the manner instantly claimed, because removal of the insoluble polymer network resulting from thermosetting merely by reintroducing a solvent would not have been considered advisable, let

alone possible. For at least this reason, claim 38 should be allowable even if the claims from which it depends are not.

For at least these reasons, withdrawal of the pending rejection under 35 U.S.C. §103(a) is respectfully requested.


CONCLUSION

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

The Commissioner is hereby authorized to charge any additional claim fees and any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 74800-009/HSJ9-2003-218-US1. If there are any questions regarding this reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

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